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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,321	04/22/2004	Hyun-Sook Kim	1594.1351	5667
21171	7590	04/11/2007	EXAMINER	
STAAS & HALSEY LLP			HECKERT, JASON MARK	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.			1746	
WASHINGTON, DC 20005				
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	04/11/2007		PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/829,321	KIM ET AL.
	Examiner	Art Unit
	Jason Heckert	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 21 March 2007.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-29 is/are pending in the application.  
 4a) Of the above claim(s) 12-17 and 25-29 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 and 18-24 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 4/22/04

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of claims 1-11, 18-24 in the reply filed on 3/21/07 is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 18-19 rejected under 35 U.S.C. 102(b) as being anticipated by Ryu et al. (Ryu). Ryu discloses a washing with a fixed drum 20, equivalent to a water tub, with a perforated rotary drum 30 disposed inside. A drive unit 40 actuates the rotary drum. The machine is provided with a water circulation device 60 that feeds water into the drum during washing and rinsing operations. Ryu discloses a water supply hose 14 for supply water into the fixed drum 20. A control unit is disclosed, but not shown (paragraph 32). The control unit controls the drive unit (paragraph 32) as well as a three-way valve 53 of the circulation device. The circulation device feeds the wash water that has dripped from drum 30 into drum 20 back to the drum 30 and therefore reads on "using only wash water supplied into the rotary drum".

4. Claims 1-4, 7-10, 18-19 rejected under 35 U.S.C. 102(b) as being anticipated by Imamura et al. (Imamura). Imamura discloses a washing machine with a tub 2, a perforated spin basket (or drum) 3, drive motor 5, water supply valve 9, circulation pump

111 connected to circulation pipe 12 and nozzle 13, an electric heater 11, temperature sensor 24, control means 31, and key input means 35. The control means is a microcomputer that controls the motor, heater, water supply, and receives input from the key input and temperature sensor. The control circuitry is able to determine temperatures, and determine whether or not a certain temperature is met (figure 12).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1-5, 18-20 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kwon. Kwon discloses a washing machine with a washing tub 60, a perforated inner tub 65, and a drive motor 75. Kwon expresses that water is fed into the machine during step s1. Kwon also discloses a circulation unit comprising a hose 70, channel 71, and a nozzle 74 for recirculating water disposed in the tub back to the inner drum (col. 3 line 66 – col. 4 line 5). The perforated drum 65 is inclined. Kwon states that the three-way valve 72 and pump 73 are controlled (col. 5 line 60), but does not distinctly disclose a controller. Examiner feels that the use of a controller of some kind is inherent and therefore Kwon is sufficient for a 102(b) rejection. However, if the applicant strongly feels that there is no implication or motivation for using a controller, the examiner maintains that controllers

are known in the washing machine art as shown above by Ryu and Imamura. It would have been obvious at the time of the invention, to use a controller to operate various aspects of the machine, such as the circulation and drive units.

7. Claim 6, 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon in view of Sumner et al. (Sumner). Kwon does not disclose that the drum is perforated in the front wall. Sumner discloses a drum for a washing machine that has a perforated front wall (figure 2). It would have been obvious at the time of the invention, to use any known drum construction, such as that with a perforated front wall as taught by Sumner, in place of Kwon's drum, as they are functional equivalents that allow fluid to drain during washing and rinsing operations.

8. Claims 11, 22-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Imamura in view of Noguchi et al. (Noguchi). Imamura discloses a control circuit means 31 and key input 35 operated by the user. Imamura also teaches that the control means can manipulate the temperature via the heater 11. Imamura does not distinctly disclose a storage or memory unit, however various storage means such as RAM and ROM are common in the art and are generally implemented and inherent in many control circuits and their inclusion cannot be considered novel. Furthermore, Noguchi teaches the use of RAM and ROM in the control circuitry of a washing machine to control various steps of washing. Other publications that reference storing temperatures and using stored data for washing machine control include but are not limited to U.S. Patent 6,499,321 to Rhodes et al., U.S. Patent 6,269,506 to Hollatz et al., U.S. Patent 6,003,182 to Song, and U.S. Patent 5,388,299 to Lee. It would have been

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obvious at the time of the invention to modify Imamura and include some type of storage memory in the control circuitry, as taught by Noguchi, to control various wash steps that are either preprogrammed or entered by the user. As stated previously, Imamura discloses an electric heater.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Heckert whose telephone number is (571) 272-2702. The examiner can normally be reached on Mon. to Friday, 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MICHAEL BARR  
SUPERVISORY PATENT EXAMINER

JMH